

## REMARKS

This is intended as a full and complete response to the Office Action dated October 4, 2004, having a shortened statutory period for response set to expire on January 4, 2005. Claims 1-24 stand rejected by the Examiner. Applicants cancelled claims 2, 15 and 20-22 without prejudice and added claims 25-28. Claims 1, 3-14, 16-19 and 23-28 remain pending in the application and are shown above. Please reconsider the claims pending in the application for reasons discussed below.

### ***Information Disclosure Statement***

Applicants request acknowledgment of the Examiner's consideration of the reference identified as cite No. 4 on page two of the IDS submitted on January 8, 2004.

### ***Claim Rejections – 35 U.S.C. § 112***

Claims 1-24 stand rejected under 35 U.S.C. § 112, second paragraph. The Examiner states that the claims omit essential structural cooperative relationships of elements in order to provide the structural or functional relationship between the elements. Additionally, the Examiner states that claim 20 recites a method for performing minimally invasive surgery inside a body of an animal without the recitation of any method steps.

In response, Applicants amended the claims and cancelled claims 2, 15 and 20-22 without prejudice. Due to these amendments, Applicants believe that the claims, including those that list a plurality of elements, provide an interrelationship of the elements and otherwise particularly point out and distinctly claim the invention. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

### ***Claim Rejections – 35 U.S.C. § 102***

Claims 1-6, 10-17 and 20-24 stand rejected under 35 U.S.C. § 102(a) as being anticipated by *Kim et al.* (U.S. Patent No. 6,648,814). The Examiner states that *Kim et al.* discloses a micro robot for colonoscopy comprising a power supply 100, a controlling

unit 200, a light emitting unit 310, a camera 320, sensors 330, motors 340, and linear actuators 350.

Applicants respectfully traverse the rejection. Claim 1 recites the limitation of “a manipulator arm extending from the body of the micro-robot, the manipulator arm having a free end defining a tip and being movable to assist in surgical tasks.” However, *Kim et al.* fails to disclose a manipulator arm having a free end movable to assist in surgical tasks. To the contrary, a micro-robot disclosed in *Kim et al.* includes body supporting units having each of their ends slidably connected to a portion of the micro-robot such that a linear actuator bends the body support units causing them to cling to the inner wall of the colon and fix the micro-robot within the colon. Therefore, *Kim et al.* fails to teach, show or suggest each and every limitation of claim 1. This failure precludes *Kim et al.* from anticipating claim 1 and claims dependent thereon. Accordingly, Applicants respectfully request withdrawal of the rejection and allowance of the claims.

### ***Claim Rejections – 35 U.S.C. § 103***

Claims 7-9, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Kim et al.* (U.S. Patent No. 6,648,814) in view of *Sasaki et al.* (U.S. Patent No. 5,304,899) or *Kim et al.* (U.S. Patent No. 6,719,684).

Applicants submit that claims 7-9, 18 and 19 are patentable over *Kim et al.* '814 in view of *Sasaki et al.* or *Kim et al.* '684 based at least on the traversal described above regarding claim 1, upon which these claims depend. Specifically, *Sasaki et al.* and *Kim et al.* '684 also fail to disclose or suggest a manipulator arm having a free end movable to assist in surgical tasks. Thus, the references, either alone or in combination, fail to teach, show, or suggest each and every limitation in each of claims 7-9, 18 and 19. Accordingly, Applicants respectfully request withdrawal of the § 103(a) rejection and allowance of the claims.

***New Claims***

Applicants submit that claim 25 is allowable based at least on the traversal discussed above regarding claim 1, which claim 25 is dependent on. Therefore, Applicants request allowance of this claim.

Claim 26 recites the limitation of “a manipulator arm extending from the body of the micro-robot, the manipulator arm having a free end defining a tip and being movable to assist in surgical tasks.” As discussed with respect to claim 1, Applicants submit that the cited references, alone or in combination, fail to teach, show or suggest this limitation. Thus, Applicants request allowance of claim 26.

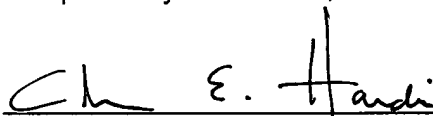
Claim 27 recites a method of performing minimally invasive surgery inside an animal body comprising multiple actions that include performing a surgical task by operation of a remotely controllable manipulator arm of a micro-robot. Applicants submit that the cited references, alone or in combination, fail to teach, show or suggest this limitation. Thus, Applicants request allowance of claim 27 and claim 28 dependent thereon.

### **Conclusion**

The secondary references made of record are noted. However, it is believed that the secondary references are no more pertinent to the Applicants' disclosure than the primary references cited in the office action. Therefore, Applicants believe that a detailed discussion of the secondary references is not necessary for a full and complete response to this office action.

The references cited by the Examiner, alone or in combination, do not teach, show, or suggest the invention as claimed. Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed.

Respectfully submitted,

A handwritten signature in cursive script, reading "Chance E. Hardie", is written over a horizontal line.

Chance E. Hardie  
Registration No. 55,247  
MOSER, PATTERSON & SHERIDAN, L.L.P.  
3040 Post Oak Blvd. Suite 1500  
Houston, TX 77056  
Telephone: (713) 623-4844  
Facsimile: (713) 623-4846  
Attorney for Applicants